Project Summary Sheet

Project Name: Ecosystem Restoration & Floodwater Attenuation Project, San Joaquin River (ERFA project)

Tracking No: 200784113

Location: West bank of the San Joaquin River at the confluence with the Tuolumne River, 10 miles west of downtown Modesto

County: Stanislaus

Project Sponsor: River Partners

Point of Contact: David Neubert (530) 894-5401 dneubert@riverpartners.org

Co-applicant(s): None

Assembly District: # 26 Greg Aghazarian Senate District: # 12 Jeff Denham

Project Description (including size): The ERFA project will benefit the state of California by reducing flood risk liability, enhancing the ecosystem and reducing operation and maintenance costs for flood control facilities on the San Joaquin River. The project improve the connection of 1,535 acres of floodplain to the River by breaching existing levees to reduce fish entrapment and improve transient floodwater storage benefits, and reduce ecosystem damage from water standing for excessive periods.

Flood Benefits: The project will improve flood management by permanently providing over 1,535 acres of transitory storage for floodwater attenuation and reducing floodwater stage levels in the San Joaquin River at peak flow. Presently, water enters the property from an uncontrolled breach in an irrigation canal, and drains through a single 36 inch culvert. Last time the property flooded in 2006, it took 90 to 120 days for the property to drain and previously restored habitat areas were damaged by the standing water. The grant-funded project would expand the drainage outlet. Additionally, the inlet could be controlled by some type of gate or weir that would allow water to be brought into the transitory storage area at the optimal time for greatest flood benefit. This would take a modification of the project to add the inlet control structure to the project budget.

Agricultural Benefits: The ERFA project is a flood corridor protection and wildlife habitat activity. The project is not designed specifically to preserve agriculture, but will complement surrounding agricultural operations by reducing flood risk on adjacent properties.

Agricultural Land Conserved: N/A

Wildlife Benefits: The project will restore 633 acres of riparian forest along the San Joaquin River. The project is located within the 6,950 acre San Joaquin River Refuge and will build upon riparian habitat already restored on the Refuge. There is 2,617 acres of riparian habitat surrounding the ERFA project site. It will also provide salmonids habitat that will aid in reestablishing salmonid populations on the San Joaquin River.

Wildlife Habitat Conserved: The project would provide 633 acres of restored habitat that would harbor threatened and endangered species like, neo-tropical birds, waterfowl and upland game birds and would reduce the risk of fish entrapment.

Total Area Conserved: The project is already in federal ownership and dedicated to wildlife refuge purposes. The project would create 633 acres of restored riparian habitat on the floodplain within the SJRNWR and provide increased ability to use1,535 acres for transient floodwater storage.

Other Benefits: The project will complement earlier work funded by the Department of Water Resources (DWR), CALFED and the United States Army Corps of Engineers (USACE) to restore habitat and improve flood management on the San Joaquin River National Wildlife Refuge (SJRNWR). Other positive benefits of the ERFA project include: improving water quality and reliability; increasing groundwater recharge; providing an off main-channel sediment deposition site during peak flows; increasing educational opportunities for children and our communities; enhancing public access to the San Joaquin River; and supporting the Lower Tuolumne River Parkway & other regional efforts to enhance environmental quality and public safety.

Total Cost: $3,565,496

FPCP Cost: $3,171,344. The FPCP funds would be used for re-contouring the site for drainage and to create refuge mounds for the listed riparian brush rabbit, to improve the outlet structure for faster drainage, to plant habitat, and to study the potential for managing the timing of transitory storage to increase flood benefits during extreme flood events. An inlet control structure could be added at extra cost to increase the ability to manage the timing of transitory storage to maximize flood benefits.

Funding Partners and Share of Cost: Initially, the applicant indicated CVPIA has provided $250,000 for restoration. Potentially, River Partners will provide $144,152 for administrative costs. The applicant indicated on 3/27/08 that the CVPIA funds have been increased to $500,000.

Supplemental Information:

1. Is there a full hydrologic report with the application, or is there simply an engineer's opinion? Either way, what is the conclusion as to the anticipated flood

benefits of the project? Response: There is a hydrologic study that indicates 4-inch drop in stage along 3 miles of the river based on an uncontrolled inlet. By installing an inlet control structure, benefits could be improved during extreme events but these results have not been modeled.

2. What exactly will the FPCP funds pay for? Response: FPCP funds will pay for improving the outlet of the transitory storage, grading the site to create upland mounds as riparian brush rabbit refugia, restoration of the site for ecosystem enhancement, and study of the feasibility of managing the timing of transitory storage of floodwaters during extreme flood events. If a control structure is added at the inlet, this cost would be above the current budget.

    a. If the project applicant indicated they could accept less – then what (if anything) would be cut from the project? (What is lost by providing less FPCP grant money?) Response: The applicant indicated the budget could not be reduced, but the project could be divided in up to four phases ranging in cost from $720,000 to $1.5 million. If the project were to be budgeted over multiple years, the loss of economy of scale would add $240,000 to the total cost.

    b. Does the applicant have access to alternate funding to replace the amount deducted from their request so that they can still spend the total amount they requested? If so, what would be the alternate funding source(s) and is the alternate funding already allocated, promised or committed? Response: Not presently. The project site is a national wildlife refuge, so in the future federal budgeted funds might become available.

    c. When giving a project score credit for matching funds, how much of the funding is matched? What is the source of the matching funds and are the matching funds already committed? Response: The matching funds total $644,152 and are committed. Source is CVPIA and River Partners in-kind services.

3. If there is funding for acquisition of property, what is the type of ownership? Easement? Fee title? Or Both? Response: The property is presently owned in fee by the federal government.

    a. Who will own the easement or fee title? DWR? Project applicant? Other? Response: See response to 3 above. As a matter of policy, the FPCP does not require conservation easements on property owned and managed by the U.S. Fish and Wildlife Service. If the property is to be used for timed transitory storage, an agreement will be negotiated between DWR and the USFWS to memorialize and authorize that type of use

4. Does any portion of the project site have mitigation bank potential for DWR to gain mitigation credits for its maintenance program? (Note: Mitigation property would need to be within 40 miles of the disturbance area that needs to be mitigated). Response: There is no mitigation potential for DWR.

5. Is the project a USACE authorized project? If so, is there USACE funding for the project? Should the USACE be fully funding the project? Response: USACE levees are potentially involved, but changes are not part of an authorized project and the Corps is not providing funding.

6. Can the management of transitory water storage on the site be optimized for flood benefit? Is the applicant willing to work with DWR on water management during extreme flood events? Response: There is potential to manage the timing of inletting water for transitory storage during extreme flood events. The refuge manager, Kim Forrest, enthusiastically supports exploring this opportunity to reduce flood risks, and the feasibility of such an effort will be studied as part of the project budget and scope of work. Modifying the inlet and outlet structures for water management flexibility and control would increase the cost of the project as these costs are not presently in the budget, although the budget will cover feasibility evaluation of this usage of the site.

Flood reviewers response to management review questions (3/18/2008):

How will the project differ from existing conditions?

The proposed project will better connect the floodplain to the river and allow for sediment deposition and inundation. Although the existing area already does some of this, the levee breach will allow flood water in storage to move with the flood stages on the river, and allow fish to use the floodplain and retreat at the proper timing. The proposed project would improve the area to function better as a natural floodplain and habitat. River Partners has completed a hydraulic study to optimize where the levee breach should occur for habitat benefits. DWR has provided funding for a similar project during the last FPCP funding cycle for the adjacent Vierra Unit.

The design of the breach was for the benefit of attenuating peak flows, and was already analyzed. The most economically feasible alternative may be the one already proposed in the application.

If the project is not completed, the area would still be used for transitory flood storage, provided the other levee breaches at the property are not repaired. If the levees are repaired it would not likely provide any transitory flood storage. In addition, the current design captures only one event, and there is greater benefit if several events are captured.

How will the levee breeches impact adjacent properties?

There may be some additional pressure on local levees, but due to the project's location, impacts to adjacent properties should be minimal. The project is also proposing to breach a levee on an irrigation canal, which is not directly on the River, further reducing the potential impacts to local levees. The hydraulic report indicates that the change in river stage would be about 0.3 feet. Further analysis may need to be completed prior to implementing the project. The project will be required to prepare a plan to minimize impacts to adjacent land owners.

How will the project impact the current San Joaquin River Restoration efforts?

The project is downstream of the Merced River and the San Joaquin River Restoration Project; however, the additional habitat will further enhance the wildlife benefits of the upstream projects. For example, because fish stranding is an issue at the project site (EFRA), the additional work will benefit the migrating Salmon runs being restored upstream. Central District's Division Chief strongly supports this project because it complements the upstream San Joaquin restoration efforts.